

WHAT IS CLAIMED IS:

1 1. A low profile evaporative cooler comprising:
2 a cooler housing including a front panel, an opposing rear
3 panel, a right and left side extending between the front and rear panels,
4 each of the right and left sides having at least one opening configured to
5 permit air to enter an interior of the housing, the right and left sides
6 extending a predetermined width between the front and rear panels, the
7 width being less than one half of a length defined by the distance
8 between the right and left sides;
9 a rigid media located proximate each of the right and left
10 sides;
11 a water distribution system to provide water to the rigid
12 media; and
13 means for drawing air through the rigid media.

1 2. The apparatus of claim 1 wherein the means for drawing air
2 includes a first centrifugal blower having a blower housing and a blower
3 wheel, the blower including a pair of air inlets that face the right and left
4 sides respectively.

1 3. The apparatus of claim 2, further including a second
2 centrifugal blower, wherein the first and second centrifugal blowers are
3 located one on top of another in a vertical position, each of the blowers
4 including an exhaust outlet extending proximate the rear panel.

1 4. The apparatus of claim 3, wherein the first and second
2 blowers are inverted relative to one another with the exhaust outlets
3 being proximate one another.

1 5. The apparatus of claim 4, wherein the width is less than 16
2 inches.

1 6. The apparatus of claim 4, wherein the width is less than 12
2 inches.

1 7. The apparatus of claim 3, wherein the rear panel includes an
2 extension portion that extends away from the front panel a distance
3 greater than the width.

1 8. The apparatus of claim 6, wherein the extension portion
2 includes a pair of vertical flanges extending from the rear panel defining
3 an opening that receives a portion of the blower housing, the flanges
4 defining a length as measured along a vector between the first and
5 second sides that is less than the distance between two standard size
6 studs used in building construction.

1 9. The apparatus of claim 8, wherein the width of the extension
2 is less than 14 inches.

1 10. The apparatus of claim 3, wherein the centrifugal blowers
2 provide at least 1200 cubic feet per minute of cooled air through the
3 cooler housing.

1 11. The apparatus of claim 3, wherein the centrifugal blowers
2 provide at least 1750 cubic feet per minute of cooled air through the
3 cooler housing.

1 12. The apparatus of claim 3, wherein a portion of the blower
2 extends into the extension.

1 13. The apparatus of claim 3, wherein a portion of the blower
2 housing extension into the extension.

1 14. The apparatus of claim 3, wherein a portion of the blower
2 wheel extends into the extension.

1 15. The apparatus of claim 2, wherein the blower wheel has a
2 diameter of at least nine inches.

1 16. The apparatus of claim 2, wherein each blower includes a
2 motor mounted proximate one of the blower inlets.

1 17. The apparatus of claim 15, wherein one motor faces the
2 right side and the other motor faces the left side.

1 18. The apparatus of claim 16, wherein the blower housing does
2 not extend more than five inches into the extension.

1 19. The apparatus of claim 17, wherein the blower housing
2 includes a portion that is proximate the front panel.

1 20. A low profile evaporative cooler extending through a building
2 structure wall having standard spaced studs, the cooler comprising;
3 a housing including a front panel and an opposing rear panel
4 configured to be attached directly to the building structure wall, the
5 housing further including a first and second side extending between the
6 front and rear panels and configured to allow air to enter there through,
7 the front panel having an exposed surface area that is substantially
8 uninterrupted to prevent air from entering there through;
9 a first and second evaporative rigid media pad being located
10 proximate the first and second sides respectively; and

11 a pair of centrifugal blowers located within the housing, each
12 blower having at least one air inlet facing one of the first and second
13 sides; a portion of each of the blower extending into the wall between the
14 standard spaced studs.

1 21. The apparatus of claim 20, further including at least one
2 extension extending from the rear panel inwardly into the building
3 structure between the standard spaced studs.

1 22. The apparatus of claim 21, wherein a portion of each blower
2 extends into the building structure between the standard spaced studs.

1 23. The apparatus of claim 22, wherein the blowers are located
2 one on top of another.

1 24. The apparatus of claim 23, wherein the blowers are inverted
2 relative to one another, wherein an exhaust outlet of each blower is
3 proximate each other.

1 25. The apparatus of claim 20, wherein the blowers are located
2 in a side by side arrangement, each blower extending between two
3 different pairs of standard spaced studs.

1 26. The apparatus of claim 24, wherein each blower includes a
2 motor located proximate an air inlet.

1 27. The apparatus of claim 26, wherein one of the motors faces
2 the first side of the housing and the other motor faces the second side of
3 the housing.

1 28. An evaporative cooler comprising:
2 a cooler housing having a front panel, an opposing rear
3 panel, and a first and second side extending there between, a distance

- 4 between the first and second side is at least two times a distance
- 5 between the front and rear panels;
- 6 a pair of rigid media located proximate the first and second
- 7 sides respectively.
- 8 a centrifugal blower having at least one air inlet facing one of
- 9 the first and second sides and configured to draw cooled air through the
- 10 rigid media pads and exhaust the air through an opening in the rear panel.